



**PATENT**

U.S. Patent Application No. 09/751,059

Attorney Docket No. UM-04491

## AMENDMENTS

### IN THE CLAIMS:

1. – 70. (canceled)

71. (currently amended) A composition comprising an oil-in-water emulsion, comprising:

- a) a discontinuous oil phase;
- b) an aqueous phase;
- c) an alcohol;
- d) a surfactant;
- e) [[a]] an organic phosphate based solvent; and
- f) a halogen-containing compound.

72. (previously presented) The composition of Claim 71, wherein said oil phase comprises a plant oil.

73. (previously presented) The composition of Claim 72, wherein said plant oil is selected from the group consisting of soybean oil, avocado oil, flaxseed oil, coconut oil, cottonseed oil, squalene oil, olive oil, canola oil, corn oil, rapeseed oil, safflower oil, and sunflower oil.

74. (previously presented) The composition of Claim 71, wherein said oil phase comprises an oil selected from the group consisting of fish oil, flavor oil, water insoluble vitamins, and mineral oil.

75. (previously presented) The composition of Claim 71, wherein said oil phase comprises motor oil.

76. (previously presented) The composition of Claim 71, wherein said oil phase comprises 30-90 vol% of the oil-in-water emulsion.

77. (previously presented) The composition of Claim 71, wherein said oil phase comprises 50-80 vol% of the oil-in-water emulsion.

78. (previously presented) The composition of Claim 71, wherein said aqueous phase comprises water.

79. (previously presented) The composition of Claim 71, wherein said aqueous phase comprises phosphate buffered saline.

80. (previously presented) The composition of Claim 71, wherein said alcohol comprises ethanol.

81. (previously presented) The composition of Claim 71, wherein said surfactant comprises a polysorbate surfactant.

82. (previously presented) The composition of Claim 71, wherein said surfactant comprises a pheoxypolyethoxyethanol.

83. (previously presented) The composition of Claim 71, wherein said surfactant comprises sodium dodecyl sulfate.

84. (previously presented) The composition of Claim 71, wherein said halogen-containing compound comprises cetylpyridinium chloride.

85. (previously presented) The composition of Claim 71, wherein said halogen-containing compound is selected from the group consisting of cetylpyridinium halides, cetyltrimethylammonium halides, cetyltrimethylammonium halides, cetyltrimethylbenzylammonium halides, cetyltributylphosphonium halides, dodecyltrimethylammonium halides, tetradecyltrimethylammonium halides, cetyltrimethylammonium chloride, cetylbenzyldimethylammonium chloride, cetylpyridinium bromide, cetyltrimethylammonium bromide, cetyltrimethylammonium bromide, cetyltributylphosphonium bromide, dodecyltrimethylammonium bromide, and tetradecyltrimethylammonium bromide.

86. (previously presented) The composition of Claim 71, wherein said a halogen-containing compound is a quaternary ammonium compound.

87. (previously presented) The composition of Claim 71, wherein said

emulsion further comprises a germination enhancer.

88. (canceled)

89. (previously presented) The composition of Claim 71, wherein said phosphate based solvent comprises tributyl phosphate.

90. (previously presented) The composition of Claim 71, wherein said emulsion further comprises a component selected from the group consisting of a neutramingen, L-alanine, ammonium chloride, trypticase soy broth, yeast extract, L-ascorbic acid, lecithin, p-hydroxybenzoic acid methyl ester, sodium thiosulfate, sodium citrate, inosine, sodium hydroxide, dextrose, and polyethylene glycol.

91. (previously presented) The composition of Claim 71, wherein said alcohol comprises ethanol, and wherein said surfactant comprises a pheoxypolyethoxyethanol.

92. (previously presented) The composition of Claim 71, wherein said alcohol comprises ethanol, wherein said surfactant comprises a polysorbate surfactant, and wherein said halogen-containing compound comprises cetylpyridinium chloride.

93. (currently amended) A method of making an oil-in-water emulsion comprising emulsifying a mixture, said mixture comprising:

- a) a discontinuous oil phase;
- b) an aqueous phase;
- c) an alcohol;
- d) a surfactant;
- e) [[a]] an organic phosphate based solvent; and
- f) a halogen-containing compound.

94. (previously presented) The method of Claim 93, wherein said oil is selected from the group consisting of soybean oil, avocado oil, flaxseed oil, coconut oil, cottonseed oil, squalene oil, olive oil, canola oil, corn oil, rapeseed oil, safflower oil, and sunflower oil.

95. (previously presented) The method of Claim 93, wherein said oil is selected from the group consisting of fish oil, flavor oil, water insoluble vitamins, and mineral oil.

96. (previously presented) The method of Claim 93, wherein said oil phase comprises motor oil.

97. (previously presented) The method of Claim 93, wherein said alcohol comprises ethanol.

98. (previously presented) The method of Claim 93, wherein said halogen-containing compound is selected from the group consisting of cetylpyridinium halides, cetyltrimethylammonium halides, cetyltrimethylethylammonium halides, cetyltrimethylbenzylammonium halides, cetyltributylphosphonium halides, dodecyltrimethylammonium halides, tetradecyltrimethylammonium halides, cetyltrimethylammonium chloride, cetylpyridinium chloride, cetylbenzyldimethylammonium chloride, cetylpyridinium bromide, cetyltrimethylammonium bromide, cetyltrimethylethylammonium bromide, cetyltributylphosphonium bromide, dodecyltrimethylammonium bromide, and tetradecyltrimethylammonium bromide.

99. (previously presented) The method of Claim 93, wherein said mixture further comprises a germination enhancer.

100. (canceled)

101. (previously presented) The method of Claim 93, wherein said mixture further comprises a component selected from the group consisting of a neutramingen, L-alanine, ammonium chloride, trypticase soy broth, yeast extract, L-ascorbic acid, lecithin, p-hydroxybenzoic acid methyl ester, sodium thiosulfate, sodium citrate, inosine, sodium hydroxide, and polyethylene glycol.

102. (previously presented) The method of Claim 93, wherein said alcohol comprises ethanol, and wherein said surfactant comprises a pheoxypolyethoxyethanol.

103. (previously presented) The method of Claim 93, wherein said alcohol comprises ethanol, wherein said surfactant comprises a polysorbate surfactant, and wherein said halogen-containing compound comprises cetylpyridinium chloride.

104. (currently amended) A method for protecting a surface of a human from pathogens, or decontaminating a surface of a human of pathogens, comprising exposing said surface of a human to a composition comprising an oil-in-water emulsion, said oil-in-water emulsion comprising components:

- a) a discontinuous oil phase;
- b) an aqueous phase;
- c) an alcohol;
- d) a surfactant; and
- e) a halogen-containing compound;

wherein said components are combined under conditions such that the said oil-in-water emulsion itself is antimicrobial.

105. (canceled)

106. (canceled)

107. (canceled)

108. (canceled)

109. (canceled)

110. (previously presented) The method of Claim 104, wherein said surface of a human comprises an external surface of a human.

111. (previously presented) The method of Claim 104, wherein said surface of a human comprises an internal portion of a human.

112. (canceled)

113. (previously presented) The method of Claim 104, wherein said pathogens

are selected from the list consisting of bacteria, spores, fungi, protozoa, viruses and subviral agents.

114. (previously presented) The method of Claim 104, wherein said pathogens are selected from two or more of the list consisting of bacteria, spores, fungi, protozoa, viruses and subviral agents.

115. (canceled)

116. (canceled)

117. (canceled)

118. (canceled)

119. (canceled).

120. (canceled)

121. (previously presented) A system comprising a food product in contact with an oil-in-water emulsion, said oil-in-water emulsion comprising:

- a) a discontinuous oil phase;
- b) an aqueous phase;
- c) an alcohol;
- d) a surfactant; and
- e) a halogen-containing compound.

122. (canceled)

123. (canceled)

124. (canceled)

125. (canceled)

126. (canceled)

127. (canceled)

128. (canceled).

129. (canceled)

130. (canceled)

131. (previously presented) A method for protecting a food product from pathogens, or decontaminating a food product of pathogens comprising exposing said food product to a composition comprising an oil-in-water emulsion, said oil-in-water emulsion comprising:

- a) a discontinuous oil phase;
- b) an aqueous phase;
- c) an alcohol;
- d) a surfactant; and
- e) a halogen-containing compound.

132. (previously presented) The method of Claim 131, wherein said pathogens are selected from the list consisting of bacteria, spores, fungi, protozoa, viruses and subviral agents.

133. (previously presented) The method of Claim 131, wherein said pathogens are selected from two or more of the list consisting of bacteria, spores, fungi, protozoa, viruses and subviral agents.